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Flying Operations

FLIGHT MANUALS PROGRAM (FMP)

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(SMSgt William E. Seiler)
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(Maj Gen Edwin E. Tenoso)
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This instruction sets procedures and standards for commands who manage and use flight manuals to operate or maintain aircraft throughout the Air Force. It implements AFPD 11-2, *Flight Rules and Procedures*, and interfaces with AFPD 21-3, *Technical Orders*; AFPD 60-6, and TOs 00-5-1, 00-5-2, 00-5-3 and 00-5-19. This instruction applies to major command (MAJCOM) Operations Directorates, unit level TO distribution activities, flight manual managers, and flight crewmembers who manage, prepare, review, approve, distribute, or use flight manuals. Users should send comments and suggested improvements on AF Form 847, **Recommendation for Change of Publication**, through channels, to HQ AFMC/DOO, 4225 Logistics Ave Suite 2, Wright Patterson AFB OH 45433-5714. This instruction may be supplemented at any organizational level. MAJCOM, field operating agencies (FOA), and direct reporting units (DRU) must send one copy of their supplement to HQ AFMC/DOO and HQ AFMC/ENC.

SUMMARY OF REVISIONS

This revision clarifies policies and procedures for the FMP; amplifies US Air Force TO System policy or procedures; places HQ AFLC and HQ AFSC duties under a new heading of HQ AFMC (paragraph 3.); and lists Flight Manual Manager (FMM) responsibilities(paragraph 4.).

1. FMP Publications. These include flight manuals (-1 series), air refueling procedures manuals (1-1C-1 series), basic weight checklist and loading data manuals (-5 series), functional check flight manuals (-6CF series), cargo aircraft loading manuals (-9 series), cargo aircraft nuclear weapon loading manuals (-16 series), nuclear weapon delivery manuals (-25 through -31 series), non-nuclear munitions delivery manuals (-34 series), and mission operation manuals (-43 series).

2. General Instructions:

2.1. System Program Directors (SPD) of military aircraft acquisition programs:

2.1.1. Establish a FMP when setting up a TO Management Agency (TOMA, TO 00-5-1).

2.1.2. Assign a FMM to manage the FMP for the life of the aircraft program. When two FMMs are assigned, one at the Product Center (PC) during acquisition and one at the Air Logistics Center (ALC) for life cycle management under the Integrated Weapon System Management (IWSM) concept, set up procedures to make sure FMP direction is coordinated and FMP records are maintained for the life of the program.

2.1.3. Ensure flight test programs contain adequate instructions to gather data for flight manuals. See MIL-M-7700 for requirements.

2.1.4. Ensure all program elements (engineering, logistics, funding, etc.) support the FMP and its schedule (**Attachment 2**).

2.2. For FMP Publications:

2.2.1. Remember that minimum print quality for all FMP publications is Level III (Good Quality), as described in the *GPO Agency Procedural Handbook* (GPO Publication 305.1).

2.2.2. Note that only the HQ AFMC FMM may change, delete, or rearrange information or procedures in individual FMP publications. Only operational and safety supplements, TO changes, and revisions defined in TO 00-5-1 update FMP manuals.

2.2.3. Only use a supplement to update the basic publication. Do not use supplements to update information or procedures in a previous supplement.

2.2.4. Make sure formal FMP supplements affecting procedural checklists contain temporary checklist pages.

2.2.5. Make sure interim supplements affecting flight crew checklists authorize write-in changes to the affected checklist. Maintenance or aircrew may write-in changes on scroll checklists when changes affect flight safety. Don't use automated checklists until they are revised.

2.2.6. Replace interim supplements affecting flight crew checklists with formal supplements containing temporary checklist pages. Publish formal supplements and complete ID within 40 calendar days after dispatch of the interim supplement. The FMM coordinates with users before deciding whether to formalize an interim supplement. That decision may depend on whether a formal manual change is about to be published.

2.2.7. Make sure all FMP supplements include a status page or a paragraph listing all current supplements outstanding against affected manual and checklist.

2.2.8. Only use a change to formally update the *EMERGENCY PROCEDURE SECTION* of a flight manual when crews use the flight manual in flight. The time to publish the change will be the same as a formal supplement.

2.2.9. Note that MAJCOMs may add more restrictive items to flight crew checklists to enhance training, tactical, or special operations. Send copies of these items to the FMM and review at the next Flight Manuals Review Conference.

2.2.10. If MAJCOMs authorize, do not require units to post supplements that don't apply to the MDS aircraft they operate.

2.2.11. Tell flight crewmembers that they must make write-in references to each affected paragraph in flight manuals to direct attention to outstanding supplements. Also tell them that they must write interim supplement procedures into checklists, in full if practical.

- 2.2.12. Inform flight crewmembers that they may make notes in their individually assigned flight manuals and checklists.
- 2.3. HQ AFMC FMMs may develop and issue scroll and or automated checklists through an official TO revision, or supplement to complement the basic, functional check flight manuals.
- 2.4. For Supplemental Flight Manuals:
 - 2.4.1. FMMs develop classified flight manuals and checklists according to MIL-M-7700.
 - 2.4.2. FMMs develop partial flight manuals and checklists for aircraft modifications intended to be permanent according to MIL-M-7700. These manuals and checklists complement the basic flight manual and are incomplete without it.
 - 2.4.3. HQ AFMC units and the Special Mission Operational Test and Evaluation Center (SMO-TEC) develop modification flight manuals and checklists outside the formal TO system. These manuals and checklists provide operating instructions and information for a small number of aircraft modified for engineering and flight testing. Only information and procedures resulting from the modification is needed since a standard flight manual is required for the aircraft. HQ AFMC and HQ AFSOC (Air Force Special Operations Command) will establish procedures for developing these manuals.

3. HQ AFMC Responsibilities. HQ AFMC/DOO:

- 3.1. Develops and implements policy and guidance for the Air Force FMP and coordinates policies affecting TO System policies with HQ USAF/LGMM.
- 3.2. Approves or disapproves MAJCOM requests for waivers or exceptions to this instruction.
- 3.3. Coordinates FMP management with the Department of Defense (DoD) and other federal agencies.
- 3.4. Acts as arbitrator and approving official for unresolved FMP issues.
- 3.5. Annually, convenes a US Air Force FMP policy conference with the using commands and other interested staff and command representatives. Reviews policies, MAJCOM requirements, management objectives, FMP specifications, timeliness of FMP publications, problem areas, and FMP plans.
- 3.6. Monitors Flight Manuals Review Conferences (FMRC).
- 3.7. Participates in Air Force Central TO Management (CTOM) Committee.
- 3.8. Annually, NLT 15 February, prepares and sends a consolidated listing of FMMs and a listing of aircraft by mission design and series operated by each MAJCOM and FOA, to AFSA/SEF, each MAJCOM or FOA POC and each FMM. Include the name, rank or grade, weapon system, office symbol, address, and DSN number of each FMM on the listing. RCS: HAF-XO(A) 9443, *Flight Manual Managers List with MAJCOM and FOA Points of Contact*, applies. This report has been designated emergency status code D. Immediately discontinue reporting data requirements during emergency conditions.
- 3.9. Establish approval and control procedures for flight manuals and checklists for experimental, engineering, flight test, and special mission aircraft (see paragraph 2.4.3.).
- 3.10. Identify specialized engineering and technical support centers for the FMMs.

4. FMM Responsibilities. The FMM:

- 4.1. Manages the technical content, format, and accuracy of FMP publications. Also see AFPD 21-3, TOs 00-5-1, 00-5-3, and 00-5-19).
- 4.2. Coordinates with the TOMA for FMP contracting, funding, numbering, printing, distribution and indexing.
- 4.3. Ensures overall compliance with policies and procedures established by HQ USAF, HQ AFMC, the Air Force Safety Agency (AFSA/SEF), the Directorate of Nuclear Systems Engineering (OLNS/EN (ASC)), the AF Developmental Test Center (AFDTC/XR) (for non-nuclear weapons), and the Life Support System manager (SAALC/LD).
- 4.4. Establishes an adequate Quality Assurance (QA) program. The QA program must include ways to inspect and approve reproduction media and printed or electronic copies of publications before distribution. The QA program usually operates through Memoranda of Agreement or Understanding between the FMM's organization and the inspecting agency.
- 4.5. Participates in the *TO Planning and Requirements Conference*, Guidance Conference, in process reviews (IPR), preliminary and critical design reviews, pre- and post-publication reviews, Flight TO Review Boards (FTORB) and other acquisition functions to develop and maintain technical competence on their military system.
- 4.6. Determines requirements for new and updated FMP publications and coordinate with the MAJ-COMs concerned.
- 4.7. Ensures FMP publications' schedules fit with **Attachment 2** and support aircraft test and delivery schedules. Coordinates with TOMA to mail all FMPs first class.
- 4.8. Arranges with the TOMA for quality inspection on the first article of a FMP publication print run. Either the FMM or a designated representative may inspect the publication.
- 4.9. Sends requests for deviation or waiver of FMP TO specification requirements to HQ AFMC/ENCS for approval, with an information copy to HQ AFMC/DOO. Maintains permanent records of all authorized waivers and deviations to FMP TO specifications. When users approve commercial manuals, maintains a copy of the letter or document denoting approval.
- 4.10. Ensures FMP publications and other program TOs affecting the FMP are compatible. Reports conflicts caused by policy or specification to HQ AFMC/DOO/ENCS.
- 4.11. Holds minor corrections not affecting operations or safety until a major change.
- 4.12. Submits FMP publications and updates for publishing and distribution (see **Attachment 2**). Notifies affected operating commands and HQ AFMC/DOO when the schedule slips; cites the reasons for delay and include new schedule dates.
- 4.13. Ensures FMP publication changes or supplements associated with Time Compliance TOs (TCTO) are distributed prior to or concurrently with TCTO publication, but not later than delivery or modification of the first aircraft affected.
- 4.14. Issues an updated supplement concurrently with a change or revision when either contains only part of a current supplement.
- 4.15. Distributes changes and revisions affecting flight manuals and their checklists, as well as any associated manuals, concurrently.

4.16. Processes safety and operational supplements as follows:

- Issues an interim safety or operational supplement (if required) within 48 hours after receiving MAJCOMs validation and approval.
- Ensures initial distribution (ID) of formal safety or operational supplements, not preceded by interim supplements, within 15 calendar days of a validated requirement. Note: ID is "complete" on the date material is placed in the mail.
- Requests issuance of formal supplements, changes or revisions to replace interim supplements affecting checklists after validating the contents of the interim supplement.

4.17. Determines the need for and schedule a FMRC. Complies with the following instructions:

- Ensures funding for reproducible copies of FMP publications is available before convening FMRCs.
- Conducts a FMRC annually unless MAJCOMs agree to a delay. Provides HQ AFMC/DOO rationale for delay.
- Notifies AFSA/SEF, AFMC/DOO, using commands, and other participants of the FMRC's objectives and administrative details.
- Provides copies of the FMRC minutes to action item OPRs, participants, AFSA/SEF, and HQ AFMC/DOO.

4.18. Reviews and evaluates all mishap reports affecting like aircraft to detect and correct flight manual and checklist deficiencies.

4.19. Reports their name, grade or rank, office symbol, DSN and commercial phone numbers, FAX number, aircraft MDS managed, and TO numbers and series managed, to HQ AFMC/DOO not later than 15 January annually or as significant changes occur. RCS: HAF-XO(A) 9443 applies.

5. Using Command Responsibilities. MAJCOMs and FOAs:

5.1. Ensure personnel comply with this instruction, AFD 21-3, TOs 00-5-1, 00-5-2, and 00-5-3. Assigns personnel responsible for monitoring the FMP for each command weapon system.

5.2. Provides a written list of all aircraft and point of contact for each MDS operated by the command to HQ AFMC/DOO and appropriate flight manual manager not later than 15 January annually or as changes occur. Includes DSN number for both voice and facsimile (fax), message addresses and electronic mail address. RCS: HAF-XO(A) 9443 applies.

5.3. Establishes procedures for processing an AF Form 847, **Recommendation for Change of Publication (Flight Publications)**. Complies with the following instructions:

- Ensures procedures prevent forwarding of duplicate recommendations outside the MAJCOM.
- Notifies the FMM and HQ AFMC/DOO if someone other than Stan Eval will review AF Form 847.

5.4. Establishes procedures to reproduce passenger briefing cards (see AFI 11-206 [formerly AFR 60-16]).

5.5. Ensures FMP publications are maintained in the highest state of currency and accuracy.

5.6. Ensures FMP publications are readily available to meet all aircrew and mission requirements. Complies with the following instructions:

- Establishes procedures so that flight crewmembers on active flying status have personal copies of needed FMP publications and binders.
- Establishes internal distribution procedures for FMP publications, including interim safety and operational supplements, so that flight crewmembers always have the most current FMP data before participating in flight operations.
- Establishes procedures for periodic reviews to ensure currency of flight crewmembers' FMP publications.

5.7. Establishes procedures to ensure maintenance personnel use the proper sections of flight manuals and flight crew checklists to operate aircraft systems and engines during ground maintenance operations.

5.8. Provides representatives with the authority to act for the command at FMP policy conferences and FMRCs for command operated (or about to be operated) aircraft.

5.9. Conducts a command analysis of applicable FMP publications, including nuclear weapon and non-nuclear munitions delivery manuals, for each FMRC. Send recommendations to the FMM a minimum of 45 calendar days before scheduled FMRCs, or when the FMM requests.

5.10. Identifies to the FMM any unique requirements needed for the flight manual or checklist, such as Kimdura type paper, at least 60 calendar days before the FMRC.

5.11. Establishes procedures to identify publication problems that are not reported by an AF Form 847, such as word omissions, typographical, printing, or quality errors.

6. Flight Crewmembers' Responsibilities. Flight crewmembers:

6.1. Follow FMP publications and authorized supplements during aircraft operations.

6.2. Use the right checklists during all phases of flight operations.

6.3. Accomplish critical (Bold Face) emergency actions, in the published sequence, without referring to a checklist.

6.4. Keep personal flight manuals and checklists current.

6.5. Submit recommended FMP publication changes on AF Form 847 (see paragraph 8., paragraph 9., paragraph 10. and 12).

7. Quality Feedback. Publish a FMP quality feedback survey with each flight manual publication revision or change. Include the FMM's address on the survey. MAJCOMs must encourage individuals to complete the survey. MAJCOM or FOA Stan Eval must provide quality feedback information to the FMMs. (Reproduce surveys locally if needed)

8. Recommending FMP Publication Improvements. Submit recommended changes and improvements to FMP publications on AF Form 847 according to the procedures below. Submit emergency reports for conditions that require immediate correction to prevent fatality, serious injury to personnel, extensive damage to property, or a reduction in operational posture. Submit routine reports for conditions that are potentially hazardous from prolonged use, have negative effects on operational efficiency, reduce operational life, or general service use of equipment. Do not use the AF Form 847 to call attention

to word omissions, typographical, printing or quality errors usually corrected during scheduled reviews unless they cause misinterpretation. MAJCOMs establish how minor errors of this kind are identified.

9. Processing AF Forms 847. Process all AF Form 847 through command channels (see flow Diagrams, attachment 5).

9.1. Emergency (Critical Safety Hazard Notice) AF Form 847:

9.1.1. Submit an emergency AF Form 847 as a critical safety hazard notice message (sample message **Attachment 3**). The numbered line items in the message format relate to block numbers on the AF Form 847. Route messages and use precedence as in **Table 1.**, below. Follow the same procedures during MINIMIZE. The initiating unit will send the message to its MAJCOM or FOA, with an information copy to the FMM. Air Reserve Component (ARC) units will send the message to their gaining MAJCOM, with information copies to their numbered Air Force (or equivalent), either ANGSC/XO, Andrews AFB MD 20331-6008, or HQ AFRES/DO, Robins AFB GA 31098-6001, and the FMM.

9.1.2. Require parent MAJCOMs or FOAs approve, downgrade, or disapprove the emergency AF Form 847 submitted by their subordinate units. Require them to comply with the following instructions:

- Originating MAJCOMs or FOAs must send an approved AF Form 847 to the FMM, AFSA/SEF, and all MAJCOMs and FOAs operating the same aircraft within 48 hours after receiving the message. Include AFSA/SEF and the originating unit as information addressees. Other affected MAJCOMs and FOAs must send their concurrence or comments to the FMM within 48 hours after receiving the message.
- The originating MAJCOM or FOA must send AF Form 847 disapproval messages to the initiating unit, the FMM and AFSA/SEF with justification for the disapproval action. The originating MAJCOM or FOA must process downgraded AF Form 847 as routine.

Table 1. Critical Safety Hazard Notice Message Routing and Precedence

R U L E	A	B	C	D	E
	If the message is from	and is addressed to the	then the precedence is	and the info copy is sent to	then the info copy precedence is
1	Unit	MAJCOM	Immediate	FMM	Priority
2	MAJCOM	FMM or other MAJCOM		HQ AFSA/SE or originating unit	
3	FMM		Priority		Routine

9.1.3. Make sure the FMM informs all MAJCOMs and FOAs and government agencies using affected TOs of intended action on emergency notices within 60 hours after receipt. If the FMM disapproves or downgrades a notice, the message must include justification for this action. Note: Use the words "intended action" instead of approve, disapprove, or downgrade because other options are frequently needed.

9.1.4. If any using command has not received notification of the FMM's intended actions within 60 hours after their original message transmission, make sure they take followup action within 12 hours.

9.2. Routine Reports:

9.2.1. Within 45 calendar days, the MAJCOM or FOA Stan Eval office must evaluate a routine AF Form 847 and send approved forms to the FMM and all MAJCOMs and FOAs operating the same type aircraft. Return disapproved forms, other than those involving mishaps, to the initiating unit with an explanation of the disapproval action. Comply with the following instructions:

- Forward all AF Forms 847 submitted as a result of a mishap investigation to the FMM and AFSA/ SEF (even if they are disapproved somewhere in the processing chain).
- Ensure other MAJCOMs and FOAs using the same type aircraft send their recommendations to the FMM within 45 calendar days after receiving the form from the originating MAJCOM and FOA.

9.2.2. All ARC units must send routine AF Form 847 to their gaining MAJCOM Stan Eval office through the numbered Air Force or its equivalent. Send an information copy to either ANGRC/ XOO or HQ AFRES/DO as applicable.

9.2.3. The FMM must inform all MAJCOMs, FOAs, and government agencies using affected TOs of intended action on the AF Form 847. This must be done before 30 calendar days after the other using commands respond. The FMM must justify any decision not to incorporate MAJCOM or FOA approved AF Form 847. The originating MAJCOM or FOA must then inform the initiating unit of the status of the recommendation.

9.2.4. The affected MAJCOM or FOA can resubmit an AF Form 847 with additional justification and rationale when the FMM's actions are considered unacceptable.

10. Entering Information on the AF Form 847. Follow the instructions listed below (items not listed are self-explanatory).

10.1. Date. Enter the date the originating unit sends the recommendation to the MAJCOM.

10.2. Unit Number. The originating unit enters the control number, which at minimum consists of the unit designation, the year, and a sequence number. On the back side of the form also place the unit number at the top.

10.3. Reserved. Organizations may specify use of this block for local management and processing needs.

10.4. Items 4 through 11. Identify the specific location of the subject matter and the recommended change.

10.5. Indorsements (Reverse Of Form). Indorsers must either concur or nonconcur: concurrence in part or concurrence with intent must be made in remarks section. Enter pertinent remarks and identify themselves, their office, organization, base and zip code and DSN number for both voice and facsimile (fax). MAJCOMs specify endorsement requirements for internal management.

11. Form Prescribed. Use AF Form 847, **Recommendation for Change of Publication (Flight Publications)** to recommend improvements to FMP TOs. When other publications require, use this form to

make recommended changes. These publications have specific processing instructions in them. If an AF Form 847 contains classified data, mark it according to guidance in DoD 5200.1R or AFR 205-1.

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Acting DCS/Plans and Operations

Attachment 1

GLOSSARY OF ABBREVIATIONS AND ACRONYMS

Abbreviations and Acronyms

AFMC—Air Force Materiel Command
AFSA—Air Force Safety Agency
ARC—Air Reserve Component
CTOM—Centralized TO Management (Committee)
DoD—Department of Defense
DSN—Defense Switched Network
FMM—Flight Manuals Manager
FMP—Flight Manuals Program
FMRC—Flight Manuals Review Conference
FOA—Field Operating Agency
GPO—Government Printing Office
ID—Initial Distribution
MAJCOM—Major Command
NLT—Not Later Than
OPR—Office of Primary Responsibility
QA—Quality Assurance
SPD—System Program Director
Stan Eval—Standardization Evaluation
TCTO—Time Compliance Technical Order
TO—Technical Order
TOMA—Technical Order Management Agency

Attachment 2

FMP PUBLICATION CHANGE PRODUCTION SCHEDULE

Below is the schedule for developing and producing routine publication changes. The schedule for emergency or urgent changes, distributed by message, is detailed in paragraph 9. These schedules ensure FMP publications are updated in a timely and accurate manner.

Table A2.1. Schedule for Developing and Producing Routine Publication Changes.

LINE	A	B	C	D
	Preproduction	Production	Printing	Initial Distribution
1	Minimum of 60 Calendar Days	75 Calendar Days for Change 105 Calendar Days for Revision	45 Calendar Days	120 Calendar days after production start for a change. 150 Calendar days after production start for a revision

- a. **Preproduction Phase.** The period between publishing of one TO update and development of the next one.
 - 1.The FMM will announce the update at least 60 days prior to the start of the production phase (see below), and request inputs; routine change suggestions will normally be accepted for up to 60 days after the announcement.
 - 2.The update package may consist of FMRC recommended changes or approved AF Form 847.
- b. **Production Phase.** This phase begins when the FMM submits requested updates to the TOMA or contractor for development of an FMP TO update. It ends when the TOMA or contractor forwards approved reproduction media to the GPO for printing. The production phase includes: writing, in process reviews, validation, verification, and prepublication review of the update, contractor or TOMA preparation of the print package, and request for shipping labels. The time required is highly dependent on the urgency of need and complexity of the update, but should not exceed 75 days for a change or 105 days for a revision.
- c. **Reproduction Phase.** The GPO sends the reproduction media to a printing contractor. Make allowances for pre-ID quality inspection. This contractor prints and distributes the update, normally within 45 days after receiving the print package.
- d. **Initial Distribution.** This is the date it is mailed; delivery may take up to two weeks. In some cases, the entire print run is sent to the ALC for final inspection and distribution, which may add time to the total process.

Attachment 3

SAMPLE CRITICAL SAFETY HAZARD NOTICE MESSAGE

Note: THIS IS A SAMPLE ONLY. AIRCRAFT, BASES, OR COMMANDS, MAY NOT BE CURRENT.

UNCLASSIFIED

01 01 031248Z NOV 92 RR RR UUUU

DOO

NO

380BW PLATTSBURGH AFB NY//DO//

1CEVG BARKSDALE AFB LA//ST//

INFO SMALC MCCLELLAN AFB CA//MMSRB//

UNCLAS

SUBJECT: CRITICAL SAFETY HAZARD NOTICE 831

1. TO 1F-111(B)A-1
2. 6 MAR 81
3. 1 NOV 82
4. 340
5. ENGINE FIRE INFLIGHT
6. N/A
7. N/A
8. N/A
9. ITEM 3. AGENT DISCHARGE SWITCHUP.
10. ITEM 3A. AIR SOURCE SELECTOR KNOB OFF OR EMER.
11. A RECENT FB-111 INCIDENT SHOWED A RUPTURE OF THE 16TH STAGE BLEED AIR DUCT MAY ACCOMPANY A CATASTROPHIC ENGINE FAILURE. IF THIS CONDITION IS SUSPECTED, THE AIR SOURCE SELECTOR KNOB SHOULD BE PLACED TO OFF OR EMER TO PRECLUDE FURTHER DAMAGE.

ACTION OFFICER AND TITLE

OFFICE AND PHONE NUMBER

RELEASER'S NAME, TITLE, SYMBOL

CRC:

UNCLASSIFIED

031248ZNOV92

Attachment 4

AF FORM 847 FLOW CHARTS

Figure A4.1. AF FORM 847 - EMERGENCY AND ROUTINE FLOW CHARTS

